

Claims:

1. A method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved in a memory of the first mobile device, the method comprising the steps of:
 - (a) identifying at least one first data record of the plurality of data records saved in the memory of the first mobile device;
 - (b) saving a first subset of data of each of the at least one first data record to a storage medium residing on a second computing device;
 - (c) deleting the first subset of data of each of the at least one first data record from the memory of the first mobile device, wherein a second subset of data of each of the at least one first data record remains saved in the memory of the first mobile device;
 - (d) for each of the at least one first data record, associating an identifier therewith that can be used to locate the first subset of data thereof as saved on the storage medium;
 - (e) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
 - (f) identifying at least one second selected data record of the plurality of data records saved in the memory of the first mobile device;
 - (g) for each of the at least one second selected data record, determining the location of the first subset of data thereof as saved on the storage medium using the identifier associated therewith;
 - (h) for each of the at least one second selected data record, retrieving at least a subset of the first subset of data thereof from the storage medium; and

- (i) for each of the at least one second selected data record, saving the at least a subset of the first subset of data thereof, as retrieved in step (h), in the memory of the first mobile device.

- 5 2. The method as claimed in claim 1, wherein the second computing device is a server.
- 3. The method as claimed in claim 2, wherein the server is coupled to the first mobile device by a wireless communication link.
- 10 4. The method as claimed in claim 1, wherein each of the plurality of data records comprises data associated with an electronic mail message.
- 15 5. The method as claimed in claim 4, wherein the second subset of data of a data record comprises sender and subject header data associated with the electronic mail message.
- 6. The method as claimed in claim 1, wherein each of the plurality of data records comprises data associated with a contact entry.
- 20 7. The method as claimed in claim 1, wherein each of the plurality of data records comprises data associated with a calendar entry.
- 25 8. The method as claimed in claim 1, wherein steps (f) to (i) are performed in accordance with an adaptive technique.
- 9. The method as claimed in claim 1, wherein each identifier that can be used to locate a first subset of data of a data record as saved on the

storage medium comprises either at least one numerical index or at least one pointer.

- 5 10. A method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved on a storage medium residing on a second computing device, the method comprising the steps of:
- 10 (a) identifying at least one first data record of the plurality of data records saved on the storage medium;
 - (b) saving a first subset of data of each of the at least one first data record to a memory of the first mobile device, wherein a second subset of data of each of the at least one first data record remains saved on the storage medium;
 - 15 (c) for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
 - (d) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
 - 20 (e) identifying at least one second selected data record of the plurality of data records saved on the storage medium for which an identifier associated therewith is saved in the memory of the first mobile device;
 - (f) for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
 - 25 (g) for each of the at least one second selected data record, retrieving at least a subset of the second subset of data thereof from the storage medium; and

(h) for each of the at least one second selected data record, saving the at least a subset of the second subset of data thereof, as retrieved in step (g), in the memory of the first mobile device.

5 11. The method as claimed in claim 10, wherein the second computing device is a server.

12. The method as claimed in claim 11, wherein the server is coupled to the first mobile device by a wireless communication link.

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13. The method as claimed in claim 10, wherein each of the plurality of data records comprises data associated with an electronic mail message.

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14. The method as claimed in claim 13, wherein the first subset of data of a data record comprises sender and subject header data associated with the electronic mail message.

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15. The method as claimed in claim 10, wherein each of the plurality of data records comprises data associated with a contact entry.

16. The method as claimed in claim 10, wherein each of the plurality of data records comprises data associated with a calendar entry.

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17. The method as claimed in claim 10, wherein steps (e) to (h) are performed in accordance with an adaptive technique.

18. The method as claimed in claim 10, wherein each identifier that can be used to locate a second subset of data of a data record as saved on the

storage medium comprises either at least one numerical index or at least one pointer.

19. A method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved in a memory of the first mobile device, the method comprising the steps of:
- (a) identifying at least one first data record of the plurality of data records saved in the memory of the first mobile device;
 - 10 (b) saving the data of each of the at least one first data record as a data record to a storage medium residing on a second computing device;
 - (c) deleting the data of each of the at least one first data record from the memory of the first mobile device;
 - 15 (d) for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
 - (e) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
 - 20 (f) identifying at least one second selected data record, wherein an identifier associated with each of the at least one second data record is saved in the memory of the first mobile device;
 - (g) for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
 - 25 (h) for each of the at least one second selected data record, retrieving at least a subset of the data thereof from the storage medium; and

- (i) for each of the at least one second selected data record, saving the at least a subset of the data thereof, as retrieved in step (h), in the memory of the first mobile device.

- 5 20. The method as claimed in claim 19, wherein the second computing device is a server.
- 21. The method as claimed in claim 20, wherein the server is coupled to the first mobile device by a wireless communication link.
- 10 22. The method as claimed in claim 21, wherein each of the plurality of data records comprises data associated with an electronic mail message.
- 23. The method as claimed in claim 19, wherein each of the plurality of data records comprises data associated with a contact entry.
- 15 24. The method as claimed in claim 19, wherein each of the plurality of data records comprises data associated with a calendar entry.
- 20 25. The method as claimed in claim 19, wherein steps (f) to (i) are performed in accordance with an adaptive technique.
- 26. The method as claimed in claim 19, wherein each identifier that can be used to locate a first subset of data of a data record as saved on the storage medium comprises either at least one numerical index or at least one pointer.
- 25 27. A method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved on a storage

medium residing on a second computing device, the method comprising the steps of:

- 5 (a) identifying at least one first data record of the plurality of data records saved on the storage medium;
- (b) for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
- 10 (c) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
- (d) identifying at least one second selected data record of the plurality of data records saved on the storage medium for which an identifier associated therewith is saved in the memory of the first mobile device;
- 15 (e) for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
- (f) for each of the at least one second selected data record, retrieving at least a subset of the data thereof from the storage medium; and
- 20 (g) for each of the at least one second selected data record, saving the at least a subset of the data thereof, as retrieved in step (f), in the memory of the first mobile device.

25 28. The method as claimed in claim 27, wherein the second computing device is a server.

29. The method as claimed in claim 28, wherein the server is coupled to the first mobile device by a wireless communication link.

30. The method as claimed in claim 27, wherein each of the plurality of data records comprises data associated with an electronic mail message.
31. The method as claimed in claim 27, wherein each of the plurality of data records comprises data associated with a contact entry.
32. The method as claimed in claim 27, wherein each of the plurality of data records comprises data associated with a calendar entry.
33. The method as claimed in claim 27, wherein steps (d) to (g) are performed in accordance with an adaptive technique.
34. The method as claimed in claim 27, wherein each identifier that can be used to locate data of a data record as saved on the storage medium comprises either at least one numerical index or at least one pointer.
35. A mobile device adapted to manage data, comprising:
- (a) a processor, wherein the processor is controlled by one or more processing modules;
 - (b) a network interface coupled to the processor through which communications to at least one remote computing device is communicated; and
 - (c) a memory coupled to the processor; wherein the processor is adapted to communicate with the at least one remote computing device on which a storage medium resides, wherein the processor is adapted to control the transfer of data between the memory and the storage medium, wherein the data is stored as a plurality of data records that are saved in a memory of the first mobile device,

and wherein at least one of the one or more processing modules are programmed to perform the steps of:

- i. identifying at least one first data record of the plurality of data records saved in the memory of the first mobile device;
- 5 ii. saving a first subset of data of each of the at least one first data record to a storage medium residing on a second computing device;
- 10 iii. deleting the first subset of data of each of the at least one first data record from the memory of the first mobile device, wherein a second subset of data of each of the at least one first data record remains saved in the memory of the first mobile device;
- 15 iv. for each of the at least one first data record, associating an identifier therewith that can be used to locate the first subset of data thereof as saved on the storage medium;
- v. for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
- 20 vi. identifying at least one second selected data record of the plurality of data records saved in the memory of the first mobile device;
- vii. for each of the at least one second selected data record, determining the location of the first subset of data thereof as saved on the storage medium using the identifier associated therewith;
- 25 viii. for each of the at least one second selected data record, retrieving at least a subset of the first subset of data thereof from the storage medium; and

- ix. for each of the at least one second selected data record, saving the at least a subset of the first subset of data thereof, as retrieved in step (viii), in the memory of the first mobile device.

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36. A mobile device adapted to manage data, comprising:

- (a) a processor, wherein the processor is controlled by one or more processing modules;
- 10 (b) a network interface coupled to the processor through which communications to at least one remote computing device is communicated; and
- (c) a memory coupled to the processor; wherein the processor is adapted to communicate with the at least one remote computing device on which a storage medium resides, wherein the processor is adapted to control the transfer of data between the memory and the storage medium, wherein the data is stored as a plurality of data records that are saved on a storage medium residing on a second computing device, and wherein at least one of the one or more processing modules are programmed to perform the steps of:
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 - 25 i. identifying at least one first data record of the plurality of data records saved on the storage medium;
 - ii. saving a first subset of data of each of the at least one first data record to a memory of the first mobile device, wherein a second subset of data of each of the at least one first data record remains saved on the storage medium;

- iii. for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
- iv. for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
- v. identifying at least one second selected data record of the plurality of data records saved on the storage medium for which an identifier associated therewith is saved in the memory of the first mobile device;
- vi. for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
- vii. for each of the at least one second selected data record, retrieving at least a subset of the second subset of data thereof from the storage medium; and
- viii. for each of the at least one second selected data record, saving the at least a subset of the second subset of data thereof, as retrieved in step (vii), in the memory of the first mobile device.

37. A mobile device adapted to manage data, comprising:

- (a) a processor, wherein the processor is controlled by one or more processing modules;
- (b) a network interface coupled to the processor through which communications to at least one remote computing device is communicated; and

- 5 (c) a memory coupled to the processor; wherein the processor is adapted to communicate with the at least one remote computing device on which a storage medium resides, wherein the processor is adapted to control the transfer of data between the memory and the storage medium, wherein the data is stored as a plurality of data records that are saved in a memory of the first mobile device, and wherein at least one of the one or more processing modules are programmed to perform the steps of:
- 10 i. identifying at least one first data record of the plurality of data records saved in the memory of the first mobile device;
- ii. saving the data of each of the at least one first data record as a data record to a storage medium residing on a second computing device;
- 15 iii. deleting the data of each of the at least one first data record from the memory of the first mobile device;
- iv. for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
- 20 v. for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
- vi. identifying at least one second selected data record, wherein an identifier associated with each of the at least one second data record is saved in the memory of the first mobile device;
- 25 vii. for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;

- viii. for each of the at least one second selected data record, retrieving at least a subset of the data thereof from the storage medium; and
- ix. for each of the at least one second selected data record, saving the at least a subset of the data thereof, as retrieved in step (viii), in the memory of the first mobile device.

38. A mobile device adapted to manage data, comprising:

- (a) a processor, wherein the processor is controlled by one or more processing modules;
- (b) a network interface coupled to the processor through which communications to at least one remote computing device is communicated; and
- (c) a memory coupled to the processor; wherein the processor is adapted to communicate with the at least one remote computing device on which a storage medium resides, wherein the processor is adapted to control the transfer of data between the memory and the storage medium, wherein the data is stored as a plurality of data records that are saved on a storage medium residing on a second computing device, and wherein at least one of the one or more processing modules are programmed to perform the steps of:
 - i. identifying at least one first data record of the plurality of data records saved on the storage medium;
 - ii. for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;

- iii. for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
- iv. identifying at least one second selected data record of the plurality of data records saved on the storage medium for which an identifier associated therewith is saved in the memory of the first mobile device;
- v. for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
- vi. for each of the at least one second selected data record, retrieving at least a subset of the data thereof from the storage medium; and
- vii. for each of the at least one second selected data record, saving the at least a subset of the data thereof, as retrieved in step (vi), in the memory of the first mobile device.

39. A computer-readable medium upon which a set of software components is stored, the software components containing instructions for performing the steps in a method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved in a memory of the first mobile device, the method comprising the steps of:

- (a) identifying at least one first data record of the plurality of data records saved in the memory of the first mobile device;
- (b) saving a first subset of data of each of the at least one first data record to a storage medium residing on a second computing device;
- (c) deleting the first subset of data of each of the at least one first data record from the memory of the first mobile device, wherein a

second subset of data of each of the at least one first data record remains saved in the memory of the first mobile device;

(d) for each of the at least one first data record, associating an identifier therewith that can be used to locate the first subset of data thereof as saved on the storage medium;

(e) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;

(f) identifying at least one second selected data record of the plurality of data records saved in the memory of the first mobile device;

(g) for each of the at least one second selected data record, determining the location of the first subset of data thereof as saved on the storage medium using the identifier associated therewith;

(h) for each of the at least one second selected data record, retrieving at least a subset of the first subset of data thereof from the storage medium; and

(i) for each of the at least one second selected data record, saving the at least a subset of the first subset of data thereof, as retrieved in step (h), in the memory of the first mobile device.

40. A computer-readable medium upon which a set of software components is stored, the software components containing instructions for performing the steps in a method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved on a storage medium residing on a second computing device, the method comprising the steps of:

(a) identifying at least one first data record of the plurality of data records saved on the storage medium;

- (b) saving a first subset of data of each of the at least one first data record to a memory of the first mobile device, wherein a second subset of data of each of the at least one first data record remains saved on the storage medium;
- 5 (c) for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
- (d) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
- 10 (e) identifying at least one second selected data record of the plurality of data records saved on the storage medium for which an identifier associated therewith is saved in the memory of the first mobile device;
- (f) for each of the at least one second selected data record,
- 15 determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
- (g) for each of the at least one second selected data record, retrieving at least a subset of the second subset of data thereof from the storage medium; and
- 20 (h) for each of the at least one second selected data record, saving the at least a subset of the second subset of data thereof, as retrieved in step (g), in the memory of the first mobile device.

41. A computer-readable medium upon which a set of software components is
25 stored, the software components containing instructions for performing the steps in a method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved in a memory of the first mobile device, the method comprising the steps of:

- (a) identifying at least one first data record of the plurality of data records saved in the memory of the first mobile device;
 - (b) saving the data of each of the at least one first data record as a data record to a storage medium residing on a second computing device;
 - (c) deleting the data of each of the at least one first data record from the memory of the first mobile device;
 - (d) for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
 - (e) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
 - (f) identifying at least one second selected data record, wherein an identifier associated with each of the at least one second data record is saved in the memory of the first mobile device;
 - (g) for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
 - (h) for each of the at least one second selected data record, retrieving at least a subset of the data thereof from the storage medium; and
 - (i) for each of the at least one second selected data record, saving the at least a subset of the data thereof, as retrieved in step (h), in the memory of the first mobile device.
42. A computer-readable medium upon which a set of software components is stored, the software components containing instructions for performing the steps in a method for managing data used by a first mobile device, wherein the data is stored as a plurality of data records that are saved on

a storage medium residing on a second computing device, the method comprising the steps of:

- 5 (a) identifying at least one first data record of the plurality of data records saved on the storage medium;
- (b) for each of the at least one first data record, associating an identifier therewith that can be used to locate the data thereof as saved on the storage medium;
- 10 (c) for each of the at least one first data record, saving the identifier associated therewith in the memory of the first mobile device;
- (d) identifying at least one second selected data record of the plurality of data records saved on the storage medium for which an identifier associated therewith is saved in the memory of the first mobile device;
- 15 (e) for each of the at least one second selected data record, determining the location of the data thereof as saved on the storage medium using the identifier associated therewith;
- (f) for each of the at least one second selected data record, retrieving at least a subset of the data thereof from the storage medium; and
- 20 (g) for each of the at least one second selected data record, saving the at least a subset of the data thereof, as retrieved in step (f), in the memory of the first mobile device.